

Patent Claims:

1. Device for testing functionality of loudspeakers, thereby characterized, that it includes an antenna for receiving magnetic alternating fields, a unit for analysis of the received signals with respect to signal components in the transmission range of loudspeakers and an output unit for signaling the functionality.
2. Device according to Claim 1, thereby characterized, that the antenna includes one or more receiver coils.
3. Device according to Claim 2, thereby characterized, that the receiver coils are oriented in different spatial directions.
4. Device according to one of the preceding claims, thereby characterized, that between antenna and unit for analysis an amplifier is provided for amplifying the received signal.
5. Device according to one of the preceding claims, thereby characterized, that the unit for analysis includes a filter unit for filtering the received signals.
6. Device according to Claim 5, thereby characterized, that the filter unit includes a band pass filter with a throughput range corresponding to the transmission range of the loudspeaker.
7. Device according to Claim 5, thereby characterized, that the filter unit includes multiple switchable band pass filters with throughput ranges corresponding to the transmission ranges of different loudspeakers.

8. Device according to Claim 5, 6 or 7, thereby characterized, that the filter unit includes a filter with a throughput range of approximately 100 Hz to 10 kHz.
9. Device according to one of the preceding claims, thereby characterized, that the unit for analysis is adapted for logarithmic evaluation of the received signals.
10. Device according to one of the preceding claims, thereby characterized, that it includes an input for receiving the audio signals supplied to the loudspeaker and that the unit for analysis is adapted for correlating the received signals with the supplied audio signals.
11. Device according to one of the preceding claims, thereby characterized, that the output unit is capable of providing an optical and/or acoustic signal.
12. Device according to one of the preceding claims, thereby characterized, that it includes a portable housing.
13. Device according to one of the preceding claims, thereby characterized, that it includes an independent energy supply, in particular in the form of a battery or a fuel cell system.
14. Device according to one of the preceding claims, thereby characterized, that an analog-digital converter is provided subsequent to the antenna, and that the unit for analysis of the received signal is a device for digital signal processing, in particular in the form of a micro-controller, signal processor or a ASIC.
15. Process for testing functionality of loudspeakers, thereby characterized, that the electro-magnetic alternating fields

formed by the loudspeaker are received via an antenna, the received signals are evaluated for signal components in the transmission range of loudspeakers using a unit for analysis, and in the case of the existence of the functionality this is displayed using a display unit.